

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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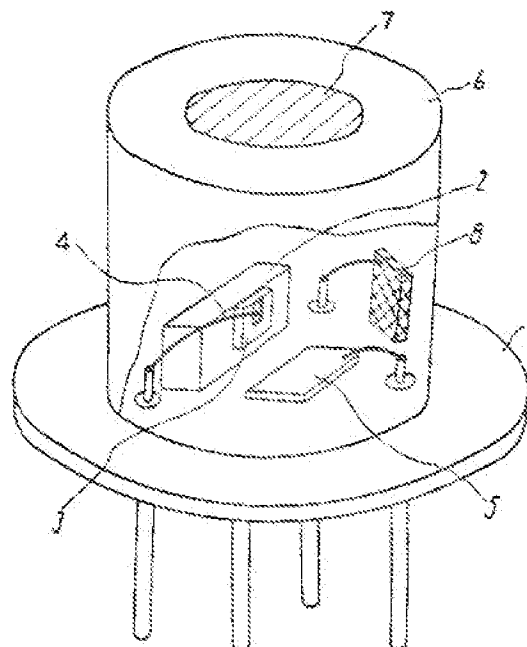
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APPLICANT : MITSUBISHI ELECTRIC CORP;

INVENTOR : YAGI TETSUYA;

INT.CL. : H01S 3/18 H01S 3/00 H01S 3/094

TITLE : SEMICONDUCTOR LASER DEVICE



ABSTRACT : PURPOSE: To bring a laser wavelength to be of a desired value at all times by installing a pyroelectric type heat sensor at a position not irradiated with a laser beam emitted from a semiconductor laser chip in a package.

CONSTITUTION: A pyroelectric type heat sensor 8 is mounted at a location not irradiated with a laser beam emitted from a semiconductor laser chip 4 in a cap 6 for sealing the laser chip 4, etc., in a semiconductor. When the semiconductor laser chip 4 is driven, heat approximately proportional to input power is generated, and the temperature of the semiconductor laser chip 4 is elevated. Far infrared rays generated by the temperature rise reach the pyroelectric type heat sensor 8, and an output proportional to the temperature can be acquired. The temperature is measured by normally applying an input through a chopper in the pyroelectric type sensor 8.

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